

Appl. No. 09/808,377  
Amdt. Dated October 14, 2004  
Reply to Office Action of August 16, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1           1. (currently amended): A stereo camera system  
2 comprising:  
3           ~~a stereo imaging means for outputting at least~~  
4 ~~one stereo image;~~  
5           stereo imaging means for outputting at least one  
6 stereo image, said stereo imaging means including:  
7                 a camera; and  
8                 a set of mirrors angled with respect to each  
9                 other at a predetermined angle relative to a common  
10                plane intersecting said camera, each mirror having  
11                adjacent ends disposed a predetermined distance from  
12                the camera along the common plane, for directing  
13                light from an object reflected in said mirrors  
14                directly to the camera, for producing a stereo  
15                effect in the output of the camera;  
16           recognition means for locating an object of  
17 interest in the field of view of the stereo imaging means  
18 and at least one of a distance of the object of interest  
19 from the stereo imaging means and the size of the object  
20 of interest; and

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21 adjusting means for automatically changing at least  
22 one system parameter which affects the spatial resolution  
23 of the object of interest based on at least one of the  
24 located distance of the object of interest from the  
25 stereo imaging means and the size of the object of  
26 interest.

1 2. (canceled).

1 3. (currently amended): The stereo camera system  
2 of claim ~~2~~ 1, wherein the camera is a still camera and  
3 the at least one stereo image is a still image.

1 4. (currently amended): The stereo camera system of  
2 claim ~~2~~ 1, wherein the camera is a video camera and the  
3 at least one stereo image is a sequence of video images.

1 5. (currently amended): The stereo camera system  
2 of claim ~~2~~ 1, wherein the adjusting means comprises at  
3 least one of:

4 angle adjustment means for adjusting the  
5 predetermined angle between the set of mirrors;

6 distance adjustment means for adjusting the  
7 predetermined distance between the camera and the set of  
8 mirrors; and

9 focal length adjustment means for changing a  
10 focal length of the camera.

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1           6. (original): The stereo camera of claim 5,  
2 further comprising a controller for controlling at least  
3 one of the angle, distance, and focal length adjustment  
4 means based on an input signal from the recognition  
5 means.

1           7. (canceled).

1           8. (canceled).

1           9. (canceled).

1           10. (canceled).

1           11. (currently amended): The stereo camera of  
2 claim ~~10~~ 1, further comprising a controller for  
3 controlling at least one of the angle, baseline,  
4 distance, and focal length adjustment means based on an  
5 input signal from the recognition means.

1           12. (original): The stereo camera system of claim  
2 1, wherein the recognition means is a stereo vision  
3 system.

1           13. (canceled).

1           14. (canceled).

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1           15.   (canceled).

1           16.   (canceled).

1           17.   (canceled).

1           18.   (canceled).

1           19.   (canceled).

1           20.   (canceled).

1           21.   (currently amended): A method for adjusting a  
2 stereo camera system to control spatial resolution of an  
3 object of interest in the field of view of a stereo  
4 imaging means, the method comprising the steps of:  
5               outputting at least one image from the stereo  
6 imaging means;  
7               locating an object of interest in the field of  
8 view of the stereo imaging means and at least one of the  
9 distance of the object of interest from the stereo  
10 imaging means and the size of the object of interest; ~~and~~  
11               automatically changing at least one system  
12 parameter which affects the spatial resolution of the  
13 object of interest based on at least one of the located  
14 distance of the object of interest from the stereo

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15 imaging means and the size of the object of ~~interest.~~  
16 interest; and  
17 providing said stereo imaging means by further  
18 including the steps of:  
19 using a camera to receive light from said  
20 object;  
21 establishing a predetermined angle between a  
22 set of mirrors, the angle being relative to a common  
23 plane intersecting said camera, and adjacent ends of  
24 said mirrors; and  
25 establishing a predetermined distance from the  
26 camera and the adjacent ends of said mirrors for  
27 reflecting light from said object from said mirrors  
28 to said camera, for producing a stereo effect in the  
29 output of the camera.

1 22. (new): A stereo camera system comprising:  
2 a stereo imaging means including two video  
3 cameras, each camera being angled a predetermined angle  
4 and distanced a predetermined distance with respect to  
5 each other and the object of interest, for outputting at  
6 least one stereo image as a sequence of video images;  
7 recognition means for locating an object of  
8 interest in the field of view of the stereo imaging means  
9 and at least one of a distance of the object of interest  
10 from the stereo imaging means and the size of the object  
11 of interest;  
12 adjusting means for automatically changing at  
13 least one system parameter which affects the spatial

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14 resolution of the object of interest based on at least  
15 one of the located distance of the object of interest  
16 from the stereo imaging means and the size of the object  
17 of interest, wherein the adjusting means comprises:  
18                   angle adjustment means for adjusting the  
19           predetermined angle of at least one of the two  
20           cameras;  
21                   baseline adjustment means for adjusting the  
22           predetermined distance between the two cameras;  
23                   distance adjusting means for adjusting a  
24           distance between at least one of the two cameras and  
25           the object of interest; and  
26                   focal length adjustment means for changing a  
27           focal length of at least one of the two cameras.